CLAIMS

1. Input device (50) for the activation and control of functions at least one apparatus (10, 11, 12, 16) of a dentist's or dental treatment station/work station, wherein the input device (50) has:

- a first input element (52) for the generation of navigation information for the control of a pointer on a user interface, which is represented on a display (13) of the dentist's treatment station,

- at least a second input element (55) for the generation of control information, with which, independently of the navigation information generated by means of the first input element (52), functions of the apparatuses (10, 11, 12, 16) are selectable and/or activatable,

- transfer means (51) for the wireless transfer of the navigation and control information generated with the aid of the first and second input elements (52, 55) to the apparatuses (10, 11, 12, 16) or to a functional unit (42) connected upstream of the apparatuses (10, 11, 12, 16),

wherein the control information generated via the second input element (55) is useable for control of at least one apparatus (10, 11, 12, 16) independently of the unit (40) administering the user interface.

2. Input device according to claim 1,

characterized in that,

the first input element (52) has a navigation element (53) for the generation of two-dimensional navigation information, and at least two selection keys (54a, 54c) for the generation of supplementary selection information.

3. Input device according to claim 2,

characterized in that,

the navigation element is a joystick (53).

4. Input device according to claim 3,

characterized in that,

for the generation of an additional item of selection information, the joystick (53) can be pressed down.

5. Input device according to any of ~~claims~~ 2 ~~to 4,~~ clain

characterized in that,

the information generated by means of the navigation element (53) and the selection keys (54a, 54c) in a navigation mode is passed on via a common interface.

6. Input device according to claim 5,

characterized in that,

in the navigation mode, the information generated by means of the navigation element (53) and the selection keys (54a, 54c) is passed on via a UART interface.

7. Input device according to any of claims 2 to 6,

characterized in that,

in a menu mode, the function of the navigation element (53) is blocked, and solely selection information can be generated with the aid of the selection keys (54a, 54c).

8. Input device according to claim 7,

characterized in that,

the first input element (52) has two additional selection keys (54b, 54d) for the generation of further selection information in the menu mode.

9. Input device according to any preceding claim,

characterized in that,

the second input element (55) is formed by means of a function key field having a plurality of function keys (56 to 63).

10. Input device according to claim 9,

characterized in that,

a part of the function keys (56 to 58) is provided for the control of an interface unit (16) for the selective transfer of video and/or audio signals.

11. Input device according to claim 9 or 10,

characterized in that,

a part of the function keys (59 to 61) is provided for the selection of a video source provided for representation on a display (13).

12. Input device according to any of claims 9 to 11,

characterized in that,

a part of the function keys (62, 63) is provided for selection of an image signal, provided for representation on a display (13), corresponding to a PC graphic standard, in particular corresponding to the VGA standard.

13. Dentist's or dental treatment station/work station, having

plural apparatuses (10, 11, 12, 16), in particular dental work apparatuses and/or examination apparatuses,

an input device (50) for the generation and wireless transfer of navigation and/or control information for the activation and control of functions of the apparatuses (10, 11, 12, 16) and

a functional unit (41), connected upstream of the apparatuses (10, 11, 12, 16), which receives the navigation and/or control information transferred from the input device (50) and passes this onto the apparatuses (10, 11, 12, 16).

14. Dentist's or dental treatment/work station according to claim 13,

characterized in that,

the functional unit (41) passes on the navigation and/or control information transferred from the input device (50) to the apparatuses (10, 11, 12, 16) at least partially in a wireless manner.

15. Dentist's or dental treatment/work station according to claim 14,

characterized in that,

the functional unit (41) has master module (42) for wireless communication with the apparatuses (10, 11, 12, 16), whereby in each case a slave module (10a, 11a, 12a) is associated with the apparatuses (10, 11, 12, 16), which slave module passes on

the information received from the master module (42) to the associated apparatus (10, 11, 12, 16).

16. Dentist's or dental treatment/work station according to claim 15,

characterized in that,

the slave modules (10a, 11a, 12a) are integrated in the respective apparatuses (10, 11, 12, 16) or connected with these via a RS232 interface and/or a PC interface.

17. Dentist's or dental treatment/work station according to any of claims 13 to 16,

characterized in that,

there can be generated by means of the input device (50)

- navigation information for the control of a pointer on a user interface, which is represented on a display (13) of the dentist's treatment station,

- and control information with which functions of the apparatuses (10, 11, 12, 16) are selectable and/or activatable independently of the navigation information.

18. Dentist's or dental treatment/work station according to claim 17,

characterized in that,

the input device (50) is configured in accordance with any of claims 1 to 12.

19. Dentist's or dental treatment/work station according to any of claims 13 to 18,

characterized in that,

the functional unit (41) further stands in connection with a server (40), whereby a data exchange between the server (40) and the apparatuses (10, 11, 12, 16) takes place via the functional unit (41).

20. Dentist's or dental treatment/work station according to claim 18, characterized in that,
the functional unit (41) is connected with the server (40) via a USB interface.

21. Dentist's or dental treatment/work station according to any of claims 13 to 20,
characterized in that,
at least one of the apparatuses controlled by the functional unit (41) is an interface unit (16) which has the following features:
- at least two inputs for receiving input signals containing image information,
- at least two outputs for the passing on of output signals containing image information to one or more displays (13) connectable with the interface unit (16) and/or to further interface units, and
- at least one internal transfer unit (70, 72) for selective passing on of the input signals containing image information to the outputs.

22. Dentist's or dental treatment/work station according to claim 21, characterized in that,
at least one input signal is a video signal.

23. Dentist's or dental treatment/work station according to claim 22,

characterized in that,

the interface unit (16) has at least two inputs and two outputs for video signals and a first transfer unit (70), via which the video input signals are selectively passed onto the outputs.

24. Dentist's or dental treatment/work station according to claim 23, characterized in that,

the interface unit (16) has an internal processing unit (73) for the transformation or processing of analog video signals, whereby the processing unit (73) has on the input side a first transformation block (73a) for the transformation of the analog video signal into a digital signal.

25. Dentist's or dental treatment/work station according to claim 24, characterized in that,

the digital signal produced by the first transformation block (73) is deliverable to a processing block (74) for digital processing of the video signal.

26. Dentist's or dental treatment/work station according to claim 24 or 25, characterized in that,

the digital signal produced by the first transformation block (73) and, if applicable, processed by the processing block (74), is selectively deliverable to the first transfer unit (70) or to at least one further transformation unit (75) for the generation of a signal corresponding to a PC graphic standard.

27. Dentist's or dental treatment/work station according to claim 26,

characterized in that,

the second transformation unit (75) produces a video signal corresponding to the VGA standard.

28. Dentist's or dental treatment/work station according to claim 27, characterized in that,

the digital signal produced by the first transformation block (73a) and, if applicable, processed by the processing block (74), is deliverable to a third transformation unit (76) for the generation of an output signal corresponding to the DVI standard.

29. Dentist's or dental treatment/work station according to any of claims 21 to 28,

characterized in that,

at least one input signal is a signal corresponding to a PC graphic standard.

30. Dentist's or dental treatment/work station according to claim 29, characterized in that,

the interface unit (16) has at least two inputs and two outputs for signals corresponding to the PC graphic standard, and a second transfer unit (72) via which the signals are selectively passed on to the outputs.

31. Dentist's or dental treatment/work station according to claim 29 or 30, characterized in that,

the signals corresponding to the PC graphic standard are VGA signals.

32. Dentist's or dental treatment/work station according to any of claims 21 to 31,

characterized in that,

the interface unit (16) has further at least two inputs and outputs for audio signals, which in each case are associated with the inputs and outputs for signals containing image information, and an audio transfer unit (71) via which the audio signals at the inputs are passed on corresponding to the passing on of the signals containing image information to the associated outputs.